

Obliteration of the Tarsal Scutella in *Accipiter cooperi* in Texas.—The daring sallies of this species often costs it its own life, but I have never known it to chase a barnyard fowl through an open window and under a bed, as is recorded¹ of the Goshawk.

December 5, 1893, sitting by my window I heard a scream from my child outside and on looking through the window saw her sitting on a hen-coop with a Cooper's Hawk making repeated swoops at the young chickens in the coop. The child was feeding the fowls through an opening and some of the food had fallen outside; at this the weaklings were picking when the assault was made. The chickens took shelter in the coop and the marauder perched in a lone tree in a field some two hundred yards away. Calling to my son, whose horse was standing saddled at the gate, he rode out and brought down the Hawk as it sought safety in flight.

On taking the bird in hand I at once saw that I had a specimen with *fused tarsal scales*. Having noted Dr. Coues' record² that such a state had not been observed in *A. cooperi*, I at once began an investigation by writing to sundry ornithologists in position to have information upon this subject. The result of this investigation goes to show that the word *fusion* is rather out of place when applied to certain Texan examples, as the scales are not only fused but so much obliterated as to be indistinguishable under a hand lens. After I had learned that the lines of the individual scutella were obsolete in at least two specimens I had collected in Cooke County, Texas, I became more pointed in my interrogations, in some instances questioning my correspondents a second time (no doubt to their annoyance) on the subject.

Following are some of the replies as to *fusion* in northern and eastern specimens:—

"None of my other specimens (I have large series) show complete fusion, but in several the divisions between the scales are not at all distinctly marked."—W. B., Dec. 23, 1893.

"I would say that to the best of my recollection I have never seen nor heard of a specimen of *Accipiter cooperi* in which the tarsal scutella were fused."—R. R., Dec. 11, 1893.

"Replying to your inquiry of the 16th the tarsal scutella of adults of *A. cooperi* and *A. velox* are normally fused."—F. M. C., Dec. 22, 1893.

Below I quote some replies relative to the obliteration of the lines marking the divisions between the individual scales:—

"Most of my adult Massachusetts Cooper's Hawks show distinct scales on the tarsus. In one or two they are somewhat indistinct, but in no case quite obsolete."—W. B., Cambridge, Mass., Jan. 24, 1894.

"As I wrote you previously in answer to the same question *Accipiter*

¹ Hatch, Birds of Minnesota, p. 184.

² Birds of the Northwest, p. 335.

cooperi NEVER (as far as my observation goes and I have examined many) has "the lines separating the tarsal scutella obliterated."—R. R., Smith. Inst., Feb. 5, 1894.

"We have quite a number of adult *Accipiter cooperi* in the Museum, but none show the fusion of the tarsi so complete as to have the lines of the individual scales *obliterated*."—H. Nehrling, Milwaukee, Wis., April 28, 1894.

"*Accipiter cooperi*, No. 756, Collection University of Minn., ♂ ad., Minneapolis, Minn. Scutella of tarsi completely fused but showing distinct transverse markings or furrows where the scales come together. Not fused near the tarso-metatarsal joint."—T. S. R., March 10, 1894.

It will thus be seen that incomplete *fusion* occurs in Massachusetts, *complete fusion* in Minnesota, and *obliteration* in Texas. Mr. Wm. Brewster *implies* obliteration in a specimen I sent him from this region. In my earlier notes my records do not discriminate between *fusion* and *obliteration*, and the specimens (if preserved) have passed from my hands. The following entries are from my notes:—

"Nov. 5, 1885. One shot from my front gate post. Scales of tarsi *fused*.

"March 2, 1887. D. F. Ragsdale shot one with scales of tarsi *fused*.

"Feb. 28, 1889. ♀ ad., Gainesville, Tex., Coll. Wm. Brewster, state of fusion complete; obliteration implied in epistle.

"Dec. 5, 1893. Ad. ♀ shot with tarsal scutella obliterated; moulting rectrices. Coll. G. H. R."

I should state that the *obliteration* in the specimen now in my collection does not extend to the tarso-metatarsal scales.

It would be interesting to know what per cent. of adult specimens from Texas have the transverse lines obliterated. It would be still more interesting to know the *cause* of such disappearance.—GEORGE H. RAGSDALE, *Gainesville, Texas*.

[The variance in the views expressed by Mr. Ragsdale's correspondents seems to depend upon the definition of the term 'fused.' Mr. Ragsdale himself clearly appreciates the difference between 'fusion' and 'obliteration' of the tarsal scales but he evidently did not emphasize this difference in making his inquiries.

In quite young specimens of *Accipiter cooperi* the tarsus is distinctly scutellate, the scales, especially those at the distal extremity of the tarsus, being more or less imbricated.

In adults the scutella are fused on partially ankylosed and the tarsal envelope then becomes entire. In none of our sixteen adult specimens, however, have I observed the complete obliteration of the lines of fusion, or change from a scutellate to a booted tarsus which Mr. Ragsdale reports, though in several examples, notably one from New Jersey, the outlines of the scales are nearly obsolete.—FRANK M. CHAPMAN, *American Museum of Natural History, New York City*.]

The Barn Owl (*Strix pratincola*) in Northern Vermont.—A male Barn Owl was killed in a barn in Lyndon, Vt., June 4, 1894, and bought by a gentleman in St. Johnsbury. The measurements of the bird were as follows: Length, 16.50; extent, 45.00; wing, 14.00; tail, 5.50; bill, 1.00; tarsus, 3.75. Its plumage was light in color and upon skinning, it was found to be very thin and muscular as though it had led a hard life.

The first known occurrence of a Whip-poor-will (*Antrostomus vociferus*) in this town was noted on May 5. They are frequent ten miles south but have not been known here before.—MARTHA G. TYLER, *Curator of the Fairbanks Museum, St. Johnsbury, Vt.*

Observations on the Ruby-throated Hummingbird.—One 27th of May my son discovered a Hummingbird at work upon her nest, and drew for me a map of the locality by which I had no difficulty in finding the spot. It was well in the depths of an eighty acre forest. I watched my opportunity and while the bird was away for material succeeded in obtaining a desirable seat for observation. The saddle was already formed and the nest evened up to a platform level with the upper surface of the limb. It was placed beyond the middle of a long, slender maple branch about fifteen feet above the ground. The bird always followed the same direction whenever she went for material. Oftener than otherwise she returned laden to her nest in thirty-nine seconds after she left it—now and then more; once ninety seconds. I also spent much time there the 28th and 29th, and find the history of those days very similar to that of the 27th. Occasionally she took a vacation for food and rest; but those vacations were short. On May 30, at two P. M., the cup was complete and the bird was carrying silk and lining it. For this material she would be gone about as long again as for that of the outside. The next day, May 31, she was sitting. During incubation she sat lightly on her nest a few minutes, then off as many, and looked brightly about her while on her eggs.

On June 8 I found my bird in trouble; another female Hummingbird was trespassing. The aggressor would hover over the nest, swoop back and forth above it like a pendulum, alight with a tantalizing gesture on a twig close beside it, or, with a squeal, dart under it, and each time she came near would get driven away by the sitting bird. Twice I saw her rob the nest, once of lichens from the outside and once a good bill-full of silk from the lining. The poor mother came back to her eggs as often as she was disturbed. After watching the constant conflict for more than two hours, I left them still battling. The next day the nest was unoccupied. During all these thirteen days—I had spent much time in close observation—I did not once see a male Hummingbird in the vicinity of the nest. It was the female who did all the labor of nest-making and of incubation and who, as long as she could, valiantly defended her eggs and property. In my chosen seat I was not more than twenty feet from